

# ATHLETIC JOURNAL

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SEPTEMBER, 1923

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# THE ATHLETIC JOURNAL

A PROFESSIONAL MAGAZINE FOR THE  
COACHES OF THE COUNTRY

**JOHN L. GRIFFITH, Editor**

VOLUME IV

SEPTEMBER, 1923

NUMBER 1

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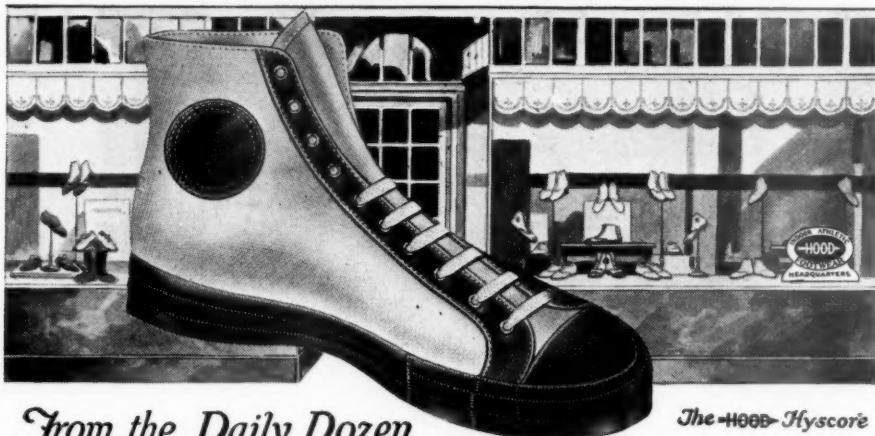
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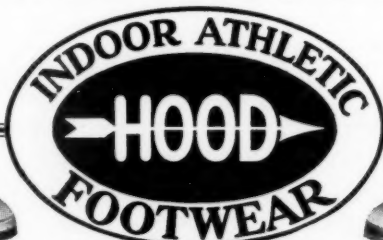
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# The ATHLETIC JOURNAL

VOL. IV

CHICAGO, ILLINOIS

No. 1

## THE LINE

BY

H. W. LEWIS

*Mr. Lewis graduated from Oak Park High School and later from the University of Chicago, where he played tackle and guard in 1920-21 and '22. He was Captain of the 1922 team and was without doubt one of the best line-men in the game.—EDITOR'S NOTE.*



OF what kind of men is your forward wall to be composed this year? The average coach at the start of a season finds a miscellaneous collection of men ranging from the very light to the very heavy. The natural tendency is to give the heavy man the opportunity to make good, but this principle is wrong. The modern line of today is one which must have plenty of power and stamina but it must be composed of players who are quick, aggressive and clever. In the Western Conference or so-called "Big Ten" the mere "beef" line has been done away with and we find exceptionally good centers, guards and tackles who are comparatively light. Men, who get the jump on the other fellows on the offense and who can size up plays on the defense, should be chosen for line men. If these qualities are combined with the other characteristics we expect in a player, who is out for a line position, the result should be a hard hitting front wall, which can maintain the speed of a fast set of back-field men.

The early training of the line men is quite as important and should be as strenuous as that of the back-

field. The so-called bucking machine is indispensable for besides being a great conditioner of the legs and shoulders, it teaches the line to hit hard, low and together. At least thirty minutes a day should be spent by the line pushing the machine up and down the field. From an offensive squat, the men should charge the machine, hitting the charging bar with the palms of their hands and with their arms stiff (Illustration No. 1), backs

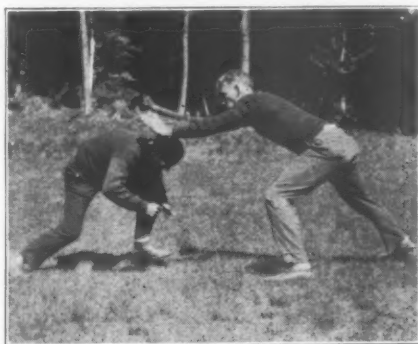


Illustration 1

straight, and feet digging rapidly. Groups of six or seven line men should be alternated after the group has pushed the machine seven or eight times for a distance of eight yards in each charge so that the men will sense the power of their united effort.

Falling on the ball is essential. From a flying start the men should

hurl themselves at the ball sideways with arms outstretched so as to draw the ball into the pocket their bodies form (Illustrations Nos. 2 and 2a). Many coaches pre-



**Illustration 2**

fer to have their men pocket the ball with their entire body rather than reach for it, but the writer believes that the quickest and surest way to secure possession of the pigskin is to reach the arms for it. A bounding ball is a different proposition.



**Illustration 2a**

Passing the ball is necessary training for line men. They should be arranged in a compact circle, passing the ball from one to the other as fast as possible. This has a tendency to quicken the eye and it

teaches the players how to hang on to the ball. Tackling the dummy is essential but has no real value unless the men are forced to go at it in a whole-hearted fashion. In tackling, the men should hit hard and have their bodies straight. They should extend their arms as they sweep through the air and swing them in sharp as they close on the dummy (Illustration No. 3). Speed and drive count in tackling so that two dummies should be rigged up, the squad divided and the men sent to tackle in competition with one another to insure a quick start and a hard clean tackle. The men should be taught to tackle from either side also.

In a preceding paragraph the bucking machine has been mentioned. At its best, it offers little flexibility and resistance, so that the men must learn in charging to adjust themselves to their opponent's shifts. The men should be arranged in pairs and should oppose each other, taking turns in charging and in defense. They should charge first with one shoulder, then with the other, and should attack with either side. They should charge past their opponents hooking them with the side of their bodies as they go, turning them in and out. This is of the most importance to the tackles working upon the opposing ends. (Illustration No. 4). After this individual work, the squad should be brought together and these fundamentals practiced as a unit. The preliminary conditioning exercises may be completed by having the squad learn to fall upon the ground. In order to secure endurance, the squad should be given from twenty to forty wind sprints a day. The ordinary sprint is about twenty-five yards with a one minute interval between each sprint.

#### **The Stance**

Perhaps one of the most important things in football is to determine what kind of a stance on the

offense the linemen should use. Most coaches teach their men to take a rather broad stance with one hand and the opposite foot on the scrimmage line while the other foot is back ten to fifteen inches. Usually the other hand is resting on the



Illustration 3

knee of the front leg. Some coaches prefer to rest the elbow instead of the hand on the knee. This position can be called the three point stance and the man taking it is in good balance.

The advantages of this stance are:  
1st—Good balance.

2nd—Ease of getting out of the line as an interferer.

3rd—It is a strong position from which to charge and root an opponent and also a good stance from which to block an opponent sideways. This kind of a stance also helps to widen out the defensive line.

When an opponent is charged, the lunge is usually made by bringing the back foot sharply forward first with a short jab step followed instantly by a short step with the other foot. When a side block is made the lineman usually lunges and lands on both hands and works

his block with his body and one knee.

Some fewer coaches prefer their men to play with both hands on the ground and with their feet in position like a sprinter's start. In this case, the five center men usually play close together, shoulder to shoulder and hip to hip.

The purpose of this stance is to make a solid wall with the idea of preventing the defensive linemen from sifting through while the concentrated power of two sets of two linemen is massed, first on a given two of the three center defensive linemen—or second, one of the sets of two linemen combine on the defensive guard while an offensive end and one offensive back concentrate in blocking the defensive tackle.

When the coach has decided which of these stances he will have his linemen take, he should have his offensive line practice combining on five defensive linemen calling out by concealed signals where the opening is made.

He should first explain to his men that the two center openings are always made by combining two men on any two of the three center men, while the two outside openings are made by concentrating two linemen



Illustration 4

on a defensive guard and a lineman and a back on the defensive tackle. He should then continue to practice making these openings until they are perfected, the center snapping the ball each time.

Two backfield men one at either side should be used in helping the end make the outside opening by blocking the tackle-out. Later a backfield formation should be added to this line blocking practice while the runner carries the ball through the opening made.

### Offensive and Defensive Charging

What the writer wishes to do is to convey some different ways of getting through a line. In nearly



Illustration 5

every game some light man in the line finds himself pitted with heavier opponents. Mere strength won't dislodge the man. He must resort to other methods. The good defensive player is versatile. He can do more than merely charge the other line. Sometimes it is more effective to pull a man out of his position; sometimes it is better to side-step him. Feinting is essential for most line men but to be successful it must be practiced. A quick feint to the right, then to the left and back through the right requires practice. As the player masters this, he can be taught to strike his opponents as he feints so that the feint accomplishes its purpose by throwing the man off his balance. The high school player generally does not realize that the position he is in, gives the offense a chance to

size him up and decide where to hit him but that it further affords him a chance to know where he is going to charge. In other words, a defensive lineman should keep moving, by working his hands and arms and legs. There are hundreds of opportunities for linemen to use their hands to split the line or perhaps to plug a hole by holding their opponent in the line. Generally a high school player prefers contact with his body, hoping to shove through the other line and most coaches have to emphasize the importance of the hands play in defensive line work.

On offense the line must charge to open the holes. How to hit needs no explanation, but it is something which a coach must keep emphasizing to his men. In order to open holes the *line must* know every signal perfectly. Much use is made in present day football of the guards and tackles as part of the offense. The guard or tackle on the off side of the play can always be utilized as interference. Centers, guards and tackles should be utilized to go through and get the opponent's secondary defense. All lines are more effective if they can be shifted so as to produce their maximum strength. An unbalanced line is used effectively by many coaches who bring over the tackle or guard or both in some cases on the side the play is going.

Tackles are the pivot men in the line. They must be fast and aggressive. They must be able to size up a play quickly. They must be able to dump interference, to turn a play in, to tackle unerringly, and to control the opposing end as much as possible. A tackle may sometimes be effectively used as the receiver of a forward pass by pulling the end back and putting a seventh man in the line on the other side.

Guards and centers control the heart of a team. Upon them depends whether or not many plays are nipped in the bud. They have

(Concluded on page 35)

# MASS OR INDIVIDUAL INTERFERENCE

BY  
O. W. STRAHAN

*Mr. Strahan graduated from Drake University in 1914 where he won his letter three times in football. He coached Perry, Iowa and Clinton, Iowa High Schools for three years. Later he served overseas as Brigade Signal Officer with the 33rd Division. Since the fall of 1919, he has been Athletic Director and Coach at Southwest Texas State Teachers College, where his football teams have won twenty-one out of thirty games played.—EDITOR'S NOTE.*



A QUESTION often asked in football circles is whether or not it is better for the interference to aim at a given spot irrespective of the defense or to have the indi-

vidual members of the interference pick out certain members of the defense. In this article the term mass interference means that the men are not assigned any particular man. They aim for a certain opening or for a position occupied by a defensive man and are instructed to cut down any opponent that attempts to stop the play. Individual interference is man for man and each player knows the defensive man he is to get before the play starts.

Interference is probably the hardest element of attack to teach and few men and teams ever reach perfection as is proven by the scarcity of first downs in a game between opponents of equal ability and by the few successful end runs in comparison to the number tried. All the methods of interference are useless unless the members can block and this will have to be taught and practiced before any system is of value. The proficiency of the individual will determine largely how to run the interference. Every coach will have candidates who can run with the ball, but who can not

and will not help the other fellow carry the ball. Running interference is not so spectacular and the men who pave the way for the beautiful runs usually are not considered by the sporting writers and by the public, yet to the man who knows football from the inside the interference is the prettiest part of the game.

The question was asked this summer of a good many coaches from all sections of the country whether they used mass or man for man interference and the answer invariably was man for man, or a modification of it. The general thought was that aiming the interference for the spot irrespective of the defense was more of an ideal or theoretical method and impractical for the average team. It is a curious fact that mass interference in some respects is used by a few of the successful teams and attempted by a majority of the uncoached teams. Because of the readiness by which mass interference can be recognized, and because the average spectator cannot follow all the intricacies of the individual interference, he is apt to condemn the coach of a team who does not use the mass system.

There is no doubt that man for man interference is the better to teach the beginner and the average team. It is simpler, more positive, and leaves no room for indecision. In all blocking exercises the individual is given a definite object to block, and the same principle is em-



ployed in man for man interference which makes it easier to coach and easier to understand, for the interferer is merely applying the habits he has learned in blocking practice. When one or more men are assigned the task of blocking an opponent they should get one only and not try to get two, for it cannot be done despite all tales to the contrary. Body checking an opponent and then going for another might give this impression but in this case the second man is the real objective.

Mass interference on plays aimed outside the end becomes complicated because it requires thought and the football player has no time to think. However, it may be used effectively on plays through the line in which an interferer leads the runner. In this case the zone of movement is restricted to a small space and little judgment is required to pick the opponent who is threatening to plug the hole. On shift plays the defense often differs from the preconceived plan, consequently the offense may of necessity have to use mass interference. These shift plays may frequently fail unless the team can use this method of blocking or a modification of it.

A combination of both systems is used by some teams with success. For instance, all of the interference may be assigned certain opponents except one man who has no particular opponent but acts as a personal interferer for the runner. Again, only one man may be designated to get a certain opponent and the rest of the interference aim for a particular spot irrespective of the defense. This latter scheme is most effective on cut-back plays in which one back goes for the end and the rest aim for the hole or at the defensive tackle. Still another variation is to give the backs definite blocking assignments and bring the guards out to lead the runner over a predetermined spot. The guards in this case serve as a screen around

which the back may dodge, as linemen are not so apt to be proficient in mass—the most difficult type of interference. The success of these methods depends upon drilling the runner to follow his interference without dwarfing his initiative to cut loose at the proper time. The trend of football at the present time seems to favor the above ideas of attack.

Opinions vary as to the effectiveness of using linemen in the interference. It requires good men, lots of practice, and special coaching. If they are used, the logical place from which they can be withdrawn is the guard position. If the guards are not active enough, it is advisable to "hep" the two best linemen into the guard position or place them there previous to lining up. The same men should be paired each time to get the greatest efficiency. From personal observation, the writer believes, most teams would be better off if they sent their linemen straight through rather than back and around especially if there are no assistant coaches. Incidentally, it might be remarked in passing, that the alignment of the men before the interference starts is of the utmost importance in the success or failure of the play in order that the full force of the play may strike the line at the proper instant. A slight variation in the position of possibly only one man may make or break the play.

In conclusion, it is folly to advocate one particular system until material and conditions are taken into consideration—which really settle all the problems in football. The writer is prejudiced against mass interference though it is admitted there are plays in which it is effective and there are coaches who have been successful in its use. On the other hand, a team trained only in individual interference may get crossed in an important game by the defense not playing where they were expected to play.



# BACK FIELD PLAY

BY

R. K. JAGGARD

*Physical Director and Athletic Coach, Hinsdale, Illinois, High School. Graduated from Colgate College 1920. Played varsity football, basketball and baseball, Baker University. Varsity half-back at Colgate. Played two years of army football at Fort Sill and Ellington Field. Was a member of Lowe and Campbell basketball team 1920-1921.—EDITOR'S NOTE.*



IN writing this article, it would be impossible to cover all the points that must be mastered in order to perfect back field play, so I wish to take up the basic fundamentals of football that are so often neglected by high school coaches. I say high school coaches, because I wish to deal primarily with the coaching of a high school back field. In high school we find so many boys that would develop into good back field men, if the coaches would spend more time on the fundamentals of foot ball and not start the boys scrimmaging too soon.

A triple threat man, that is one that can punt, pass, and carry the ball is an ideal back. University coaches find these men quite frequently, but in high school the coaches do not have this advantage, very often. We must, therefore, develop these boys, and we can do much more toward developing them by teaching the fundamental points of back field play, than we can ever hope to do by starting scrimmage too soon, and taking chances on their picking up the fine points for themselves.

Our first worry is to get our backs in condition, and I find it a very good plan to spend at least a week to ten days on punting, catching punts, handling the ball, charging, tackling, blocking, falling on the ball, throwing and receiving passes and walking through signals before any scrimmage is attempted. A good plan is to have the backs warm

up before attempting any work. Ten minutes of calisthenics, such as falling forward, backward and sideways from a standing position, lying on the back and kicking, and body bending exercises will limber up the men sufficiently. Our regular program of work will usually consist of punting, catching punts, throwing and receiving passes, blocking, charging, tackling, dummy scrimmage, real scrimmage and signal practice throughout the season.



Illustration 1

Handling the ball, falling on the ball and foot work will be on the program earlier in the season, but will be more and more overlooked as the season progresses. I think that these three phases of football

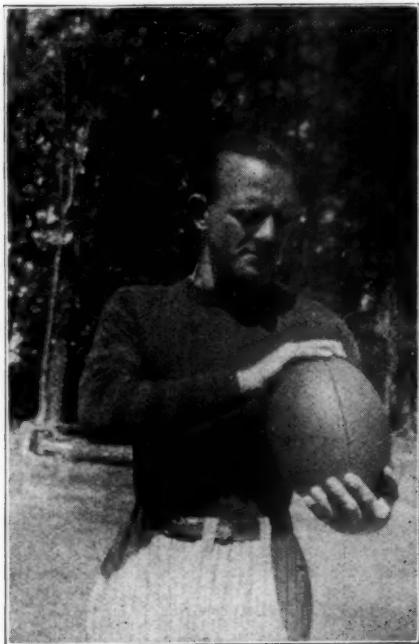
are neglected more than any of our other fundamentals, and for that reason I wish to discuss them further. We have all seen football teams beaten, because of the inability of the backs to shift the ball quickly, fall on a loose ball or to shift their feet quickly and properly.

I The average high school back field man will tuck the ball under his arm the easiest way possible and pay no attention to the proper method of carrying the ball. He must be taught to hold the ball properly and to shift the ball quickly and safely. The ball should rest with the lower end in the palm of the hand and the upper end against the breast muscle. The angle at the elbow will be approximately ninety degrees. As an illustration we will say the back is carrying the ball on the left side of his body and wishes to shift it to the right. (Illustration No. 1.) He will



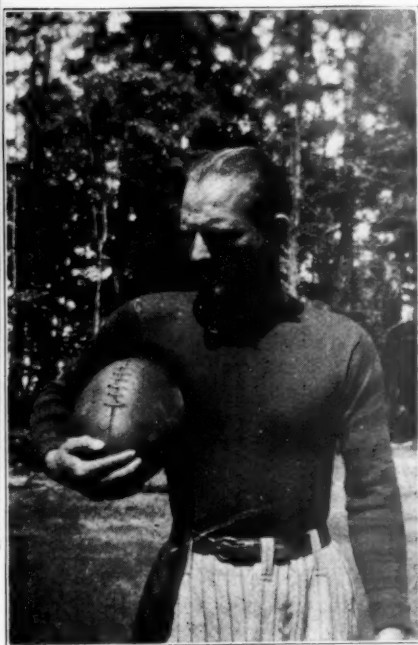
**Illustration 3**

place the right hand on the top point of the ball (Illustration No. 2); then he will rotate the ball forward,



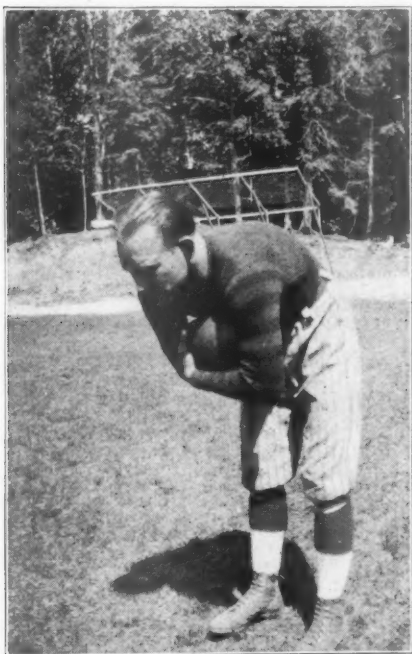
**Illustration 2**

slightly relax the left arm and as the ball drops two or three inches from the left breast muscle, he will



**Illustration 4**

and at the same time with the left hand as a guide, he will bring the ball over to the right side of the body. (Illustrations 3 and 4.) When this motion has been completed, the point of the ball that was against the left breast muscle will be in the palm of the right hand and the point that was in the palm of the left hand will rest against the right breast muscle. As the player becomes



**Illustration 5**

more proficient, he will shift the ball with the same movement, except that the under hand (the left in the illustration), will not be needed as a guide. This enables him to shift the ball and use his stiff arm more quickly. A good way in which to do this is to have the backs form in a circle, let No. 1 back shift the ball from side to side several times, pass it to the next back, and continue around the circle. I have my boys do this throughout the season, but after the first week or so, never take extra time for it. They can work on it while resting during sig-

nal practice or after catching punts and forward passes, not in regular scrimmage.

For line plunging, the arms should be wrapped around the ball and the ball held against the abdomen (Illustration 5). As a back crosses the scrimmage line and wishes to shift the ball—say to the right side of the body—he can simply remove his left hand from the ball, at the same time swinging the right arm further to the right, and pulling the left point of the ball downwards. The right point of the ball will automatically slide up against the right breast muscle and the ball will rest in the proper position (Illustration 6).

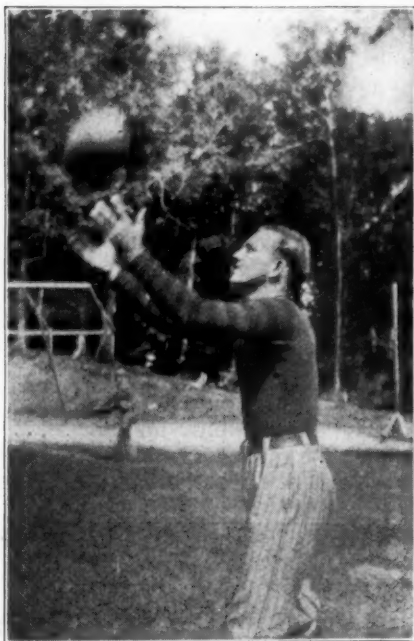
Handling punts and passes is much the same. The back will have to learn to catch the ball much like



**Illustration 6**

a baseball. He can sometimes bend his body forward and form a pocket for the ball with his arms and abdomen. He will be at a disadvantage, however, because of the

limited amount of territory that can be covered. In order to catch punts and passes from all angles and



**Illustration 7**

under any conditions, the back must learn to extend his arms, with one arm—preferably the right—slightly lower than the other, then as the ball touches his hands, he should relax his arms and body and at the same time pull the ball towards his body. (Illustrations 7 and 8.)

II In order to perfect falling on the ball, the player should practice standing six or seven feet from the ball. He should dive toward the ball, with the arms past and over (Illustration 9); he should then pull his arms toward the body and bring his knee which is closest to the ball forward, forming a pocket in which the ball rests. (Illustration 10.) As the backs become proficient in this, they can get back six or seven yards, and by running at the ball with full speed make their dives at the ball from greater distances. I recall a system used by one western coach, that was very successful. He



**Illustration 8**

placed three balls about five yards apart and in a straight line. He then marked off a restraining line about ten feet from the balls. The backs lined up in three lines about ten yards behind the respective footballs. At the word "Go," the first man in each line dashed for-



**Illustration 9**

ward and without stepping over the restraining line, plunged for his respective football. The competition to beat the other men caused the men to work harder and very suc-

(Continued on page 42)

# REQUISITES OF FOOTBALL OFFICIALS

BY  
JOHN C. GROVER

*Mr. Grover graduated from Washington University, St. Louis, where he competed in football and track. He is now practicing law in Kansas City, Missouri, and is one of the best known Missouri Valley Conference football and track officials.—EDITOR'S NOTE.*

The growth of the spirit of fair play in College sports has been very marked, especially during the past ten or fifteen years. This has been due largely to the different attitude in regard to College sports now taken by the ruling powers in the schools, to the engagement of athletic directors and coaches for longer periods of time (generally for three, sometimes for five years), to the broadminded men selected as coaches and to the general spirit of fair play and to the questionable attitude in which the poor loser is viewed.

Probably the greatest aid to this advancement is the now almost universal selection of disinterested and competent officials for the College games. Some fifteen, or even as late as ten years ago, it was not an uncommon, but in fact an established and customary occurrence for the visiting team to bring one of the leading officials with them, the home team furnishing the other. During the progress of the game, if either official called a foul on the other official's team, this other official was expected as soon as possible to return the compliment. Each official was a check upon the other, and the actual existence of fouls and a regard for the rules were matters of minor and immaterial consideration. It was an accepted fact that the officials were selected to protect their own team's rights and it was unusual for any game to be played without several fights; often the officials were assaulted by the players, more frequently by the spectators, and when the teams were closely

matched, often one or the other team did not win by its own efforts alone. Some officials carried revolvers. They were furnished with police protection, such as it was, especially was this protection necessary for the visiting official when the home team lost. At the end of each game, the winning or losing of the game was not attributed to the work of either team but to the officials, one of whom was always the scapegoat.

The using of fair, disinterested officials in no way connected with either school is an innovation of the past fifteen years, in fact its general acceptance is probably within the last ten years. Even now at some of the great schools in the country, even among schools in our Conferences, the crowd, the townspeople or the student body, have not yet come to a realization of this change and are not able to get away from the old understanding and the old idea.

The purpose of these remarks, however, is to get a little insight into the requisites of officials, and not to follow the growth of sportsmanship, nor to predict how soon every student body in the entire country will be composed of good sportsmen, a thing which is coming and coming soon.

Most people imagine that because a man was a star football player at his school, he will of necessity make a good coach or official. Often the star football player at school was a star because of physical ability, speed, judgment of plays or other natural characteristics. It does not

(Continued on page 45)



# *The* ATHLETIC JOURNAL

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JOHN L. GRIFFITH, Editor

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## THOSE WHO SURVIVE

A large number of those who this fall will be engaged in Physical Education work in the schools and colleges will seek other employment a year from now. A certain percentage each year may be expected to enter business or other professions for various reasons best known to themselves, and a great many will give up coaching either voluntarily or by request because they have not shown that they were qualified to carry on successfully the work which they had undertaken. Some of those who fail, do so because they lack character, or personality, or preparation. Some make serious mistakes early in the year, which forever constitute a handicap. There is no royal road to success in coaching, but the experience of successful coaches may serve as a guide for others to follow. At the beginning of a new year it may be pertinent to suggest a few fundamentals that the lessons of the past have shown to be correct.

The man who would succeed should realize that he will be judged by the service which he renders those whom he is called upon to instruct,—the rest of the school and the community. In the long run he will not be considered to have rendered the fullest service if his sportsmanship is not of a high order. A good sportsman does not teach men to violate the rules, he does not take his team off the field because he does not approve of a decision, he does not seek an unfair advantage, he plays the game like a gentleman himself and treats opponents with the courtesy due them, he doesn't squeal when he loses nor does he strut when he wins. Further, a good sportsman puts his whole heart and soul into the thing that he is doing, and is not content with anything but the best.

Some coaches lack the powers of discrimination and decision. They change with each new idea and are not able to adjust their system of coaching to conditions. The wise coach carefully tries out theories and rejects the one that does not prove satisfactory and holds fast to the one that yields the best results. A certain coach



who had never played in the line taught his line men on defense to charge from a sprinter's crouch. Using that defense, he suffered a disastrous defeat, and after the game decided that it was because of his style of defense. Consequently, for the rest of the season he had his line play high. He won the rest of his games, and so continued to use this defense for a number of years. One year, however, with a poor line his men were pushed back game after game, so the next year he played the crouching defense again. He played this style of defense again the next year, although he had line men who undoubtedly could have started from the other stance. This illustration is not used as an argument for one stance or another, but to show that a smart coach will prove what is best under certain conditions, and then will not easily lose confidence in the one which proved best. If men cannot fight their way through the opposing line from the high position, they are less likely to be pushed back if they play low. The coach should know when to blame the material and when to blame the system.

A mistake made each year by young coaches is that of neglecting the training in fundamentals. The public and many sports writers seem to believe that some famous coach is successful because he has knowledge of certain secrets in football. System is important, but the mastery of the technique of play is *necessary* for the success of the system. The coach who has not had a great deal of experience might well follow some well tried and proven plan of attack and defense and then with that in mind drill his men unceasingly in blocking, tackling, handling the ball and charging. Too much time should not be spent in experimenting. It is better to use some older coaches' plans at first than to expect to revolutionize the game with new ideas.

Early in the coming season some coaches will have very good success and will win all of their first games. When this happens there is danger that the players and the coach may become self-satisfied, stop driving, and try to coast through the rest of the schedule. The wise runner doesn't quit until he breasts the tape, the successful general doesn't stop fighting when he wins a battle, and the seasoned coach never lets down in the middle of the season.

In conclusion, many young men just entering the coaching profession make the mistake of assuming to be that which they are not. They should realize that they cannot fool the men on the teams who soon learn to evaluate their leader at his true worth. In athletics, even more than in other human endeavors and activities, it pays to be real. When Thanksgiving rolls around again, a few of the coaches who are new in the game will have proven their right to survive. Truly the football season is a testing time of coaches and men.

# THE SIDE STROKE

BY

E. J. MANLEY

University of Illinois

*Mr. Manley's first of a series of articles on swimming appeared in the June Journal. The next article will be published in October. He is Director of Intramural Athletics and Coach of Swimming, University of Illinois. Member of famous Missouri Athletic Club Swimming team, St. Louis, Missouri. At Illinois he has developed several champions and has developed one of the best intramural systems in American colleges.—EDITOR'S NOTE.*



**B**EFORE the existence of the trudgeon and crawl strokes, the side stroke was used for speed and distance swimming. In fact, at one time all the records for

distances from one hundred yards to a mile were made by using the side stroke. Swimming history tells us that Joey Nuttall of England held these records and was undefeated for twenty-one years. The side stroke is still used by many long distance ocean swimmers. It is also used to a great extent by life guards. It is almost impossible to become a good life saver unless this stroke is perfected for it is of great value in towing a drowning man in the water since then, the scissors kick must be used. It is not only a very easy and comfortable method of swimming but it requires very

little exertion and enables the swimmer to glide along and keep up his movements for an almost indefinite time. Until the side stroke is mastered, the swimmer cannot be classed as a most efficient swimmer.

## Description of the Side Stroke

In the overhand side stroke the body lies in the water on the side; one movement is executed under the water and the other over the water assisted by the scissor leg movement. The movements start in the water.

The swimmer should start with his body lying on the side with his right arm extended, his left arm to the side resting on the thigh—his legs extended. (Illustration 1.) At the count of one the under arm with the hand cupped should be drawn through the water sideward and downward to the thigh. This is the right arm provided the swimmer swims on his right side. The stroke should be well to the inside of the body. When the under arm stroke

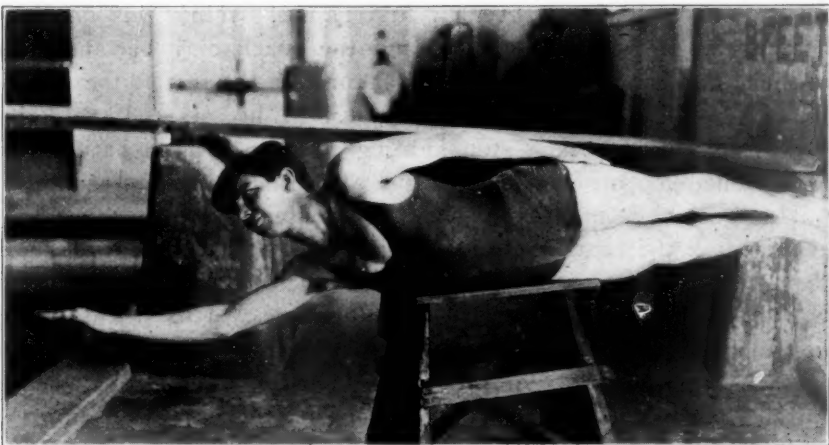


Illustration 1

is finished, the arm should be bent at the elbow and the hand turned palm upward. The over arm (left) should then be raised from the water sideward and upward with

downward pull. When the over arm is drawn through the water the under arm should be thrust forward. (Illustration 3.) On the count of two or when the over arm



**Illustration 2**

the elbow leading (Illustration 2). The hand should be thrust forward over the water about six or eight inches in front of the head with the palm turned downward. This movement also should be executed on the one count. On the count of

is drawn through the water just a little before it is completed, the knees should be up under the chest and the legs should be spread apart on the three count, and snapped together immediately. The right arm should be kept extended until the



**Illustration 3**

two the downward stroke of the over arm should be started by thrusting the hand and arms into the water. The overarm should be kept bent at the elbow so as to work clear of the chest and the stroke should be taken with a steady

momentum is spent. The scissor kick should be used.

#### **Position of the Head and Breathing**

The head should be placed in a position such that the water will

(Continued on page 41)

# BODY MECHANICS

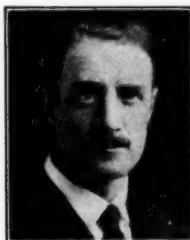
BY

G. T. STAFFORD

University of Illinois

*This article is a continuation of the series of articles which Mr. Stafford started last spring for the readers of the ATHLETIC JOURNAL. The next article will appear in the October number.*

*Mr. Stafford is Assistant Professor of Orthopedics and Physical Diagnosis, University of Illinois. Graduated from Springfield College; did graduate work at Clark University; Physical Director Brookline High School; Physical Director in A. E. F.; Director of Exercise Department of Caines College of Physical Culture, Boston.—EDITOR'S NOTE.*



DO we recognize the importance of the proper use of our bodies? A visit to the average gymnasium or a glance at people walking along the street, or even a

glance in the mirror causes us to wonder if we realize the intimate connection between good posture and health. The average gymnasium with its calisthenic drill, as too often given, is not conducive to proper use of the body. Too much time is spent on "order work" and useless arm exercises and not enough on exercises which will develop the relaxed abdominal muscles and shorten the extensor muscles of the neck. Men and women, boys and girls, are seen walking along the street with the feet turned out, the abdomen protruding, the back hollowed, the chest flat and the head bent forward.

The body is so arranged that its mechanism will work efficiently if all the parts of the body are in proper relation with one another, while poor alignment, in many instances, works positive harm on the body. In the past, poor posture was criticized from the aesthetic point of view. We are now realizing that poor posture does not go hand in hand with efficient use of the body. The United States Government, under the Department of Labor, is now conducting a survey

to find out the relation between posture and physical fitness. The attention of thinking men and women is being focused on the importance of good body mechanics as a necessary prerequisite for health. Are physical educators abreast of the times when they fail to give posture its proper place in their physical education program?

Harvard University, in 1916, found that 80 per cent of their Freshmen class had poor posture. Significant with their survey was the fact that the men with poor posture were the ones who suffered from minor ailments such as backaches, functional albuminuria, appendicitis, constipation, etc. In 1919 a similar examination was held and attention given to the feet. At this time 84.1 per cent of the Freshman class were found with poor postures. The athletes on the varsity teams were made up of A and B men generally, rarely was there a D man on the teams. Ohio State University in 1922-23 examination report showed 475 men out of 1,748, with head too far forward. 297 had round shoulders, 108 had lordosis or hollow back and 845 had flat feet. The average group of school children will show at least 25 per cent with bad postures. Surely physical education, properly administered, can alleviate a good percentage of this difficulty.

What is the proper posture? Briefly, it is a position in which the balance of the body in the erect position is maintained without un-

due strain on any of the body parts. The body is as tall as possible, without rising on the toes, the head is erect, the chest is high, the shoulders are carried so that their center is posterior to the center of gravity, the abdomen is flat, the spinal curves (front and back) are not exaggerated, the pelvis is lifted in front and tipped down in back, the anterior and posterior leg muscles are in tone, the feet straight ahead with the flexor muscles of the feet holding the toes in contact with the floor and the weight slightly forward on the balls of the feet.

The common fault in most postures is a position with the hips too far back and the abdomen protruding with the back hollowed. This is not a position of strength, nor is it a position of ease. In the poor posture position the muscles of the body are constantly laboring to maintain a balance. Fatigue is noticed much more quickly and the natural efficiency of the organism is severely lessened.

The causes of poor posture are numerous. Among the most important are the following:

1. Infantile paralysis.
2. Occupations which distort the body.
3. Bad habits in sitting, walking and standing.
4. Overwork and fatigue.
5. General debility and lack of exercise.
6. Improper school and shop furniture.

Infantile paralysis. This and other diseases such as tuberculosis, Pett's disease, rickets, etc., often leave the body in an unsymmetrical position. Varying degrees of deformity result.

Occupational postures are well known. The coal heaver and the ditch digger with the rounded back the tailor who bends over his work with a droop of the shoulder, the bookkeeper with a stoop characteristic of occupation, the newsboy with his low left shoulder from

carrying a load, far too heavy for his body, are only a few of the many instances of the effect of occupation on the posture of the body. This is not chance but a physiological law which states that function makes structure and a similar law that a muscle at rest tends to assume the position in which it was last used.

Bad habits in sitting are more serious than in standing as one generally sits for a longer period and the bad habit is maintained that much longer. The school boy or girl, whose body is craving for physical activity, who is forced to sit for a half hour or more at a stretch, generally slumps in a line of least resistance resulting in a distorted spine and irregular pressure on the growing bones. Standing, especially on one foot, is a common habit and a poor one. The right foot generally bears the burden. In this position the opposite hip is thrown out, the right hip is raised, the right shoulder is depressed and a C curve with the convexity to the left side, is the common result. Walking with a scuffling gait, with the chin on the chest, with the shoulders drooped, with the abdomen relaxed and the feet turned out, soon becomes a habit with loss of muscle tone and a waste of neural energy. This slouch position often accompanies careless habits in other lines. The individual loses his grip on himself, while the one who walks with poise and an elastic step radiates health, vigor and a strong personality. Business men are realizing the importance of health and good body mechanics and modern business has no place for the salesman who drags himself into a man's office and tries to sell his wares. A good body is necessary to keep pace with modern competition.

Overwork and fatigue. As soon as the physiological limit of work has been reached, a person droops and follows the line of least re-



sistance. In a normal person, the posture is seen as exaggerated antero-posterior curves. In those having a tendency to lateral curvature of the spine, the fatigue posture is noticed much more quickly. With poor posture, the muscular system is out of balance and antagonistic muscles necessitate a constant endeavor to maintain the erect posture. A loss of nervous and muscular effort results and fatigue sets in much sooner than in the normal individual.

General debility and lack of exercise. No matter how perfect the poise, a certain amount of muscular effort is needed to maintain the erect position. For this reason, sedentary workers, who do not supplement their work with systematic exercises, show a lack of muscle tone and in many cases various degrees of debility. With good muscle tone, one can assume poor postures without having these postures become a habit. The individual who has poor tone to begin with, often constantly assumes the bad posture habit. Depleting illnesses often leave the body very debilitated. If work is started before proper recovery, the danger is that the individual will fatigue easily and form a habit of poor posture.

Improper school and shop furniture. The average school desk and seat, and too many shop desks and chairs, conform to the old definition of the coffin: "The man who made it, didn't want it; the man who bought it, didn't use it; and the man who used it, didn't have a darn thing to say about it." Too often the principal aim in the purchase of desks and seats is to secure something that will not wear out too quickly. Inasmuch as the school child must sit in these chairs for a long time at each sitting, it seems that the seats, in which they sit should conform to lines that would be comfortable with the child in the proper posture and be uncomfortable with the child in the improper

posture. In a number of schools of today the opposite is the general rule.

The physical director can do a big job in alleviating a number of the effects of the causes mentioned above if he will study the problem and remove the cause where possible. In certain cases where, for various reasons, the cause cannot be removed, he should visualize the case in hand and plan his program of physical education to develop the body along lines which will counteract the baneful influences as given above. He knows that the flexor groups of muscles are already used considerably and that what the child needs is the development of strong back and abdominal muscles and posterior neck groups, so that in spite of bad school furniture a good carriage will result because the body is strong enough to offset the effects of conditions which especially take hold of those whose muscular system is weak.

Without proper efforts for good body mechanics the body is sure to suffer. With poor posture the chest is flattened, preventing full expansion of the lungs, the diaphragm is depressed, the abdomen is relaxed and the vital organs are not allowed to function properly. Nervous disturbance is bound to result with the body out of gear. General efficiency is impaired and the individual does not do his best mental or physical work.

The general treatment for poor body mechanics should, of course, be educational. The habits must be corrected. The instinct to stand, walk, run, climb and use the larger group of muscles should be developed in the school child especially. Physical education is falling down in its work when a boy or girl has to reach college age before his posture is treated. The age of plasticity should be watched very carefully so that the child will develop a structure that nature intended him or her to have. Miss Drew in her



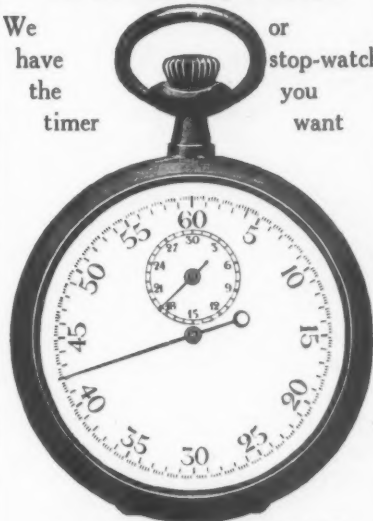
book "Individual Gymnastics," Miss Lippitt in her book "A Manual of Corrective Exercises," Thomas and Goldthwaite in "Body Mechanics and Health" show some of the fundamentals needed to overcome bad posture.

Exercises for posture. An important thing to keep in mind in giving exercises for posture is that the general bodily vigor must be developed before local correction can be maintained. For example, in a case of round shoulders, the abdomen is generally relaxed and the lower back muscles are not functioning properly. It is useless to try to put the shoulders right until the base of the spine is in good alignment. A curve in one portion of the spine generally shows a compensating curve in some other section.

The first exercise given should be one which allows the greatest correction with the least amount of muscular and mental effort. Gravity must be considered. In standing there is an element of neuromuscular co-ordination which is overcome with the body in the supine position. With the boy or girl in the supine position the knees are bent, the heels about 4 inches from the buttocks, the feet resting flat on the floor and the hands at the sides. In this position the abdomen is relaxed, the lower back should approximate the floor. The action is to draw the abdomen in, tilt the pelvis up on the abdomen and down on the back, force the back on the floor and exhale, keeping the chest up and the ribs stretched. Now for the second movement the boy should maintain this position, inhale and be sure that the back does not leave the floor. With a fair degree of muscle control, this can be done the first time. In some cases the neuromuscular co-ordination will be poor. The instructor should then proceed as follows: Straddle the patient facing the head. The thumbs of the instructor's hands are placed on

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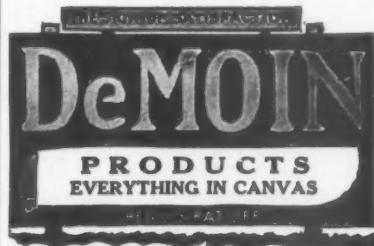
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the anterior crests of the ilium bones. As the patient exhales, the instructor presses down toward the abdomen on the crests and with the fingers pressing on the buttocks the patient's pelvis is tipped in the proper position.

The progression would then be to proper sitting, standing and walking with the above principle in mind. In standing, the chest is kept high and no reference is made regarding the shoulders. With the base in good position the rest of the body takes care of itself. This, of course, is an exaggerated pose but overcorrection is necessary that, when in the passive state, the patient does not relax too far in the wrong direction.

In cases of lordosis or hollow back, this is the first principle of correcting and until the position can be held the arms are not raised above shoulder height.

For general posture, the ordinary calisthenic exercises can be used, providing stress is laid on proper abdominal and lower back control and enough stretching exercises are given to overcome the bad effects of our modern modes of living.

Scoliosis or lateral curvature of the spine. The word scoliosis comes from the Greek meaning twisting or bending. Scoliosis is of two general types: (1) Postural, where the muscles are weakened and are not maintaining the natural symmetry of the body. (2) Structural, where definite alterations have taken place in the bony parts. The first type of curve can be cared for by the physical director alone but structural curvatures should be treated on the advice of an orthopedic surgeon.

Treatment of scoliosis:

- (1) Remove the cause.
- (2) Remove or overcome the resistance to normal movements of the spine.
- (3) Strengthen the weak muscles.
- (4) Prevent fatigue.
- (5) Correct the deformity.
- (6) Reform physical habits. Special emphasis must be

given to the strengthening of the muscular system as no correction can be maintained until the general structure of the body is strong enough to support the correction. In some cases of curvatures a brace may be worn to act as a retentive apparatus in the processes of correction. Care must be exercised that the muscles encased in the brace are given exercise which will develop them in spite of their loss of activity due to the brace interfering with normal function of the muscles involved. The reformation of physical habits should extend to basic hygiene.

In general, in the use of exercises for scoliosis certain principles must be adhered to very carefully. First: The spine is so arranged that lateral bending gives a certain degree of rotation and treatment must be of a nature not only to correct the lateral curvature but to correct the rotation as well. For example, in a plain left dorsal curve, the bodies of the vertebrae are rotated toward the convexity. An exercise in which the body is bent to the left side will correct the lateral curvature but for the rotation the body must be twisted to the right side to complete the correction. Second: The vertebrae pressed one against another on the anterior. Due to this abnormality, which is found in scoliotic cases, the spine should first be elongated before correction is attempted. This will relieve the pressure on the anterior side of the column and allow for freedom in correction. Third: Mobility should be worked for in all postural cases but in structural cases an increase in flexibility, unless retentive apparatus is used, is likely to lead to further deformity.

To avoid confusion, no definite exercises are given in this article for the reason that each case presents an individual problem and due to the complexity of the muscular deformity in different cases, it has

been found best to study each case and with the general principles in mind work up a set of exercises which will fit the individual case and not cause undue fatigue.

Proper health habits and calisthenics properly given will very materially assist in preventing a large majority of cases of spinal deviations. Instructors should work for symmetrical development of the body parts and proper use of the structure. Classes should be taught how to sit, stand and walk correctly and there will not be 80 per cent of the college freshmen in our universities with faulty body mechanics. The future of many an individual will not be marred by spinal abnormalities and physical deformities that seriously interfere with mental and physical efficiency.

The October Journal will feature an article by K. K. Rockne on Forward Passing and one by Dr. W. E. Meanwell on Basketball Plays.

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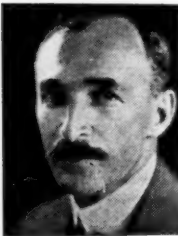
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# SOCCER FOOTBALL

BY

DOUGLAS STEWART

*Mr. Stewart is Secretary of the National Collegiate Athletic Association Committee on Soccer Football. He has been head coach of soccer at the University of Pennsylvania since 1910. In that time he has won four Intercollegiate Championships, four Penn State Intercollegiate Championships, and has four times been runner-up in the Intercollegiate League. Mr. Stewart has done a great deal toward the development of soccer in Philadelphia and throughout the country. He has played with some of the best amateur teams in the United States, Canada, England and Scotland, and besides has engaged in the sports of rowing, boxing, fencing and lacrosse. This is a continuation of the series of articles which began in the March Journal and was followed by articles in the April and May issues.—EDITOR'S NOTE.*



**C**HARGING is a phase of soccer which can be adopted by all of the players on a side, particularly by the fullbacks, halves and forwards. It is a very effective play when judiciously used and is useful in hurrying or disconcerting an opponent.

Indiscriminate charging is very poor play and usually gets the player in trouble with the referee. When a player fails to take the ball from an opponent by tackling he has recourse to the charge to put him off the ball.

Fullbacks use the charge when a clever forward beats them by sheer skill. Halfbacks use the play when their speed and cleverness are matched by an opponent, and the same applies to forwards against the opposing halves and backs.

Charging is defined as "throwing one's weight against an opponent, using for the purpose any part of the body from the shoulder to the hip."

What constitutes charging with undue force or unfairly is largely a matter of discretion with the referee, and charging a player from behind who is not intentionally obstructing an op-

ponent is not good soccer and is prohibited.

It is necessary to surround charging with restrictions, for it is a weapon, so to speak, which can be dangerously used by a skillful opponent, and even more dangerous when used unskillfully.

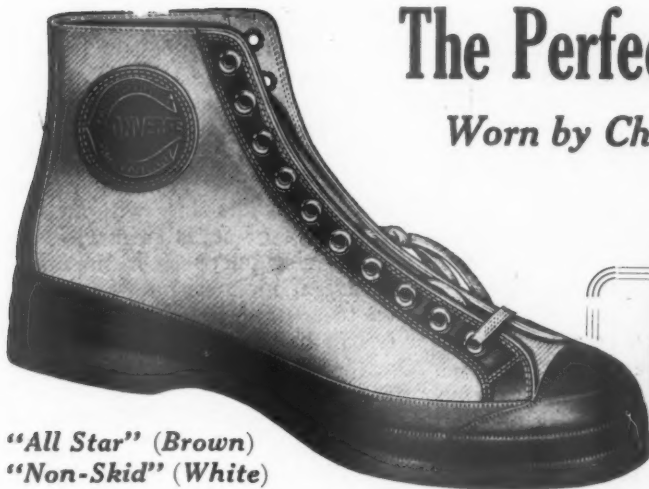
The offense of charging an opponent from behind is not committed where a player in playing the ball touches another player, unless there is an intention to charge such player. The referee is the sole judge of such intention.

If a player turns to face his own goal when he is tackled, or is obviously aware that he is about to be tackled by an opponent, he is intentionally obstructing, and may be charged from behind.

Charging with the shoulder is always a fair charge unless it is violent or dangerous, and it is violent or dangerous when it is used with undue force or when an opponent is off his feet as for instance when jumping into the air to head a ball. It is also violent or dangerous when a player leaves the ground with both feet in his effort to charge. Charging with the hip is apt to be dangerous unless properly done by a skillful player and is usually so considered by the average referee. Also charging is not permissible when an opponent is not on or near enough to the ball to affect the play.

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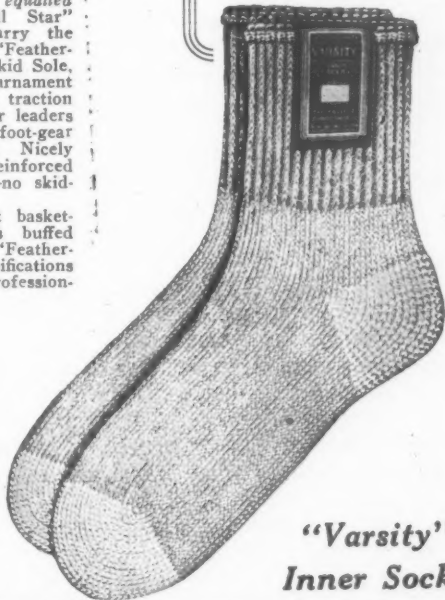
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Practically a player may be charged when he is on the ball or when it is a struggle between him and an opponent to get the ball. When a player is in position to receive the ball or is likely to receive the ball he may be hustled to prevent him receiving the ball. Hustling means worrying an opponent, by physical contact perhaps, but without force, to prevent him receiving the ball.

In charging an opponent the player should always stand up and face his opponent and not, as many beginners do, turn his back or side to the opponent. Many players, particularly in the scholastic and inter-collegiate ranks, stoop down or bend over in charging, and wonder why the referee calls a foul. The reason is that he is either guilty of dangerous play or tripping, neither of which is allowed.

In charging, the safe point of contact is the tip of the shoulder. The use of the elbows is not allowed by any referee who knows the game nor is it indulged in by any player who plays the game fairly.

Dribbling is defined as "Propelling the ball by slight touches, so that, while the runner keeps at full speed, it never gets too far away from him to control it."

The definition applies to the winger of the forward who suddenly finds himself in possession of the ball with virtually nobody in front of him, and who has a golden opportunity to advance the ball and keep ahead of the opponents who were behind him when he received the pass.

In such a case the dribbler will take the ball down the field at top speed and one or more of his mates will immediately follow on so as to be in position to receive a pass. This sort of dribble is spectacular and when it is completed by a goal it is a good play. Frequently, however, the dribbler has taken the ball down nearly to the goal area and,

in his anxiety to score and get his shot in before an opponent can get to him and charge him off, makes a wild shot at it and puts it over the bar or into the goalkeeper's hands.

Dribbling, aside from its usefulness in enabling a player to advance the ball rapidly without losing control of it, is primarily for maneuvering purposes, in the effort to draw an opponent out of the position or to find an opening to pass the ball to an uncovered mate. It is a useful accomplishment for a forward who finds himself within shooting distance, but blocked by an opponent. In this case it enables him to beat the opponent and get a clear shot.

For close work it is not necessary to travel at high speed—then it is the control which counts.

The ability to dribble is acquired by taking a ball and first tapping it gently ahead with the forward part of the inside or outside of the foot sufficient to keep it within twelve inches of the foot, propelling it around various obstacles. It is well to start at a walk and keep at that speed until control is established, then gradually increase the speed with the same control until top speed is attained.

A forward line composed of good dribblers is one of the greatest assets a team can have and when combined with equal skill in passing and trapping, the stiffest proposition a defense has to contend with, it being, of course, understood that the forwards are good shots.

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## QUESTIONS AND ANSWERS

Ques.—Where may the Official Football Rules be obtained?

Ans.—The rules are published by the American Sports Publishing Company, 45 Rose St., New York City, and may be secured from any of the A. G. Spalding Bros. stores and from most news stands.



Ques.—What is a cut back play?

Ans.—The cut back usually refers to the play where a back starts to run toward the side line with the ball and in a line parallel to the line of scrimmage and then he cuts sharply toward the line of scrimmage. The play may ultimately be outside of and just off tackle or inside tackle. A short run with a cut back over the guard is very effective. When the man with the ball reverses it is well to run obliquely toward the opposite side line from the one toward which he first started.

Ques.—What is clipping in the line?

Ans.—This is a play where an offensive man permits an opponent to charge through the line and the offensive man then drops on the other's heels from behind.

Ques.—What type of mud cleats do you recommend?

Ans.—Five round cleats on the sole and two bars on the heel.

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# ORGANIZATION AND ADMINISTRATION

BY

JOHN L. GRIFFITH

Last year in the JOURNAL the editor presented each month an outline of "A Year's Program for Required Work." This year he will offer some suggestions in each issue under the general subject of "Organization and Administration." These articles will deal with the problems that confront the administrative head of a physical education department.

## The Objectives of Physical Education

The first article, which will be presented under the subject of "Organization and Administration" will deal with the objectives of physical education. The reasons for considering objectives first are apparent—we should have an understanding as to what we are striving to do before we concern ourselves with other matters or as someone has said "we should decide where we are going before deciding what path to follow."

Physical education is the general term that includes all such activities as required work, corrective gymnastics, intra-mural, inter-school and intercollegiate athletics. Medical inspection, sanitation and hygiene may properly be included under the departmental head of physical education and is so included in many institutions. However, this course of articles will deal with matters pertaining to the first group mentioned. Many persons still think of physical education in terms of formal gymnastics and look upon athletics, especially inter-school and inter-college athletics as set apart from the other activities. Each year witnesses the growth in importance of athletic games and further notes the tendency to cor-

relate these not only with the other physical education activities, but also with the other phases of education.

The values of physical education may be classified under four heads—corrective, hygienic, recreative and educative. Although all of these values may be attained to some degree in the practice of any of the forms of physical expression, yet some activities are stressed for the special benefits that may accrue. For instance, orthopedic exercises are practiced primarily for their corrective values, but at the same time certain hygienic benefits may be secured and also, but in a lesser degree, educative and recreative values. In formal gymnastics the hygienic results are paramount, in intra-mural athletics—the recreative. A well rounded department of physical education will provide training of a general nature. The Varsity athlete is apt to have faulty posture while the man who has devoted his whole time to setting up drills in the gymnasium has missed some of the highly important social values, which may be obtained through participation in athletic games.

Since competitive athletics play such an important part in the schools and colleges and in fact affect so tremendously so many of our people, it may be well to consider at some length their objectives. The objectives of the highly organized athletics such as we have in our educational institutions are: (1) Stimulation: That is, they may serve as a stimulus for the intra-mural sports. The varsity athlete is accorded honors because of his athletic ability as the honor stu-

dents are awarded Phi Beta Kappa distinction for excellency in scholarship.

This practice is pedagogically sound though some educators object to the fact that the good athlete is given too much prominence by his fellows. Be that as it may the intramural athletics of the college as a rule are better both as regards quantity and quality where the intercollegiate athletics are successfully conducted than they are in an institution where the competitive athletics are of a low order. Further, it is seldom that any game, for instance, soccer, will be found to be popular unless there are intercollegiate competitions in that game. (2) They serve as a morale agency. During the war the War Department found athletic games invaluable in preserving the morale of the troops and our athletic competitions when properly administered in the schools and colleges, provide whole-

some entertainment for many and serve as an agency around which proper spirit and morale may be developed. (3) They affect the manners and morals of players, students and townspeople in a marked degree. The sportsman's code of ethics, which governs the actions of the great majority of amateur athletes sets a standard of conduct, which has a tremendous influence on all who witness the games. Some of the moral qualities that are thus stressed are loyalty, unselfishness, fair play, courage, self-control, co-operation, and law observance. (4) While perhaps the greatest value in competitive athletics may be estimated in terms of others than the varsity players because so many more are affected, the physical and moral benefits that are gained by the competitors themselves cannot be questioned, provided always that the activities are properly administered.



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# A PLAN FOR THE MANAGEMENT OF COMPULSORY ATHLETICS IN BOARDING SCHOOLS

BROTHER MAJELLA, B.S., C.F.X.

*Director of Athletics St. John's Athletic Association, Danvers, Mass.*



MANY faculty directors of athletics in boarding schools throughout the country have felt the necessity of doing something to interest *all* the boys in athletics, something that would appeal to *all* of them and not just the few, who have a natural liking for sports and competition. Many have tried, offering prizes for improvement in different lines of sport, arranged carnivals and field days, organized class and other teams, to furnish incentives and objectives to the students. Failure, usually, is the result; complete success, the exception.

Some few years ago, the Committee on Athletic Activities at Saint John's Preparatory School of Danvers, Mass., decided to insist on compulsory athletics for all resident students; all men in good physical condition, of the first three years of high school, were required to take some branch of athletics. How and with what success this plan is being carried out will be discussed in this article. To push through such a program, as any one experienced in boarding-school life knows, requires the co-operation of those in charge of the discipline. To carry out our program, a senior council is provided, under the supervision of the athletic director. The checking of the practice sessions and games is attended to by members of the senior class and those under-

classmen whose physical condition is such as not to allow active work.

At the beginning of any one of the athletic seasons, each student receives a card. On this card is a list of the sports for the season and spaces for checking or punching attendance at the practice sessions. After receiving the card, a boy makes his choice of sport by checking it on the card, and after endorsing it, hands it to the member of the senior council in charge. When all the cards are in, they are separated according to the sport; then they are classified again, this time the classification depending on whether the boy is out for the school team or for one of the intramural leagues. The cards are then given to the checkers. At the end of the week they are called in, examined by the senior councillor in charge and perhaps by the athletic director, and then given out to a different set of checkers for the following week. "Skipping" practice and other like violations, noted by the checkers, are handled by the senior council. Punishment usually consists in withholding of campus permissions until the offender is "back in grace."

Care is taken that the boys pass a physical examination before they are allowed to participate in competition. Members of the school team in any branch of sport, in addition to passing the physical examination, must have written permission from their parents to play on the team. A letter from the Principal or Head-Master of the school last attended is required, stating

that the boy is not a graduate of a four-year high school course and has not participated four years in interscholastic athletics. A copy of the boy's birth certificate must be filed in the athletic office to prove he has not yet reached his twentieth birthday. The last requirements are those of the Massachusetts Head Masters' Association, an organization which supervises interscholastic competition in the high schools of the state.

Care is taken also that the boys are about equal in ability and that there be no overlapping by a boy playing on more than one team. Boys who have won the school letter in any sport may not participate in any of the various league contests in that sport. When a boy shows marked ability on any one of the league teams, he is recommended to the coach of the school team and if the coach thinks well of him, he is drafted for the school team. Billy Hayes, former Notre Dame sprinter and Western Conference champion, was "found" by this method when the late Sid Peet was track coach at Saint John's; Forrest, the Boston College freshman sprinter, who won the hundred in the Eastern this past spring, is another product of this plan.

The athletic year at Saint John's, like that of other schools, is divided into three seasons which may be called the fall, winter or indoor, and spring. During the fall season, the favorite sports are, in the order named, football, cross-country running, tennis, baseball, and golf. The winter season claims hockey, basketball, track, and bowling; the spring season has baseball, tennis, track and golf.

The athletes are divided as follows: The school team, i. e., the first squad under the direct supervision of the head coach; the scrubs, who are looked after by the assistant coach; the class league, consisting of representative teams from

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each of the four high school classes, who are advised by a member of the faculty; the junior league for the smallest boys in school, made up of four, six, or eight teams depending on the sport and the number of boys eligible, also directed by a member of the faculty; and the club league, composed of representative teams from the different societies with no direct supervision.

Each league team has its own student manager who represents it at the league meetings which are presided over by a member of the faculty who acts in the capacity of advisory coach for all the teams. He hears all protests and his decisions are final. He is in close touch with the athletic director and coach of the school teams and, as referred to above, recommends any boy to the coach who shows promise of developing into first string material. The coach then need not bother about the boys who do not try out for the school team at the beginning of the season or worry over the idea that there might be better material in the school than that which he has out.

In dividing the boys, as outlined above, one of the most serious difficulties to the average athletic director is overcome, that of furnishing competition to every boy without the financial burden of traveling expenses and guarantees to visiting teams. Prizes, as well as a banquet, are given to the members of the winning team in each league, while for each sport there is a loving cup, of which the school is the custodian and on which is engraved the name of the winning team and the year. These last features act as incentives to the individual players.

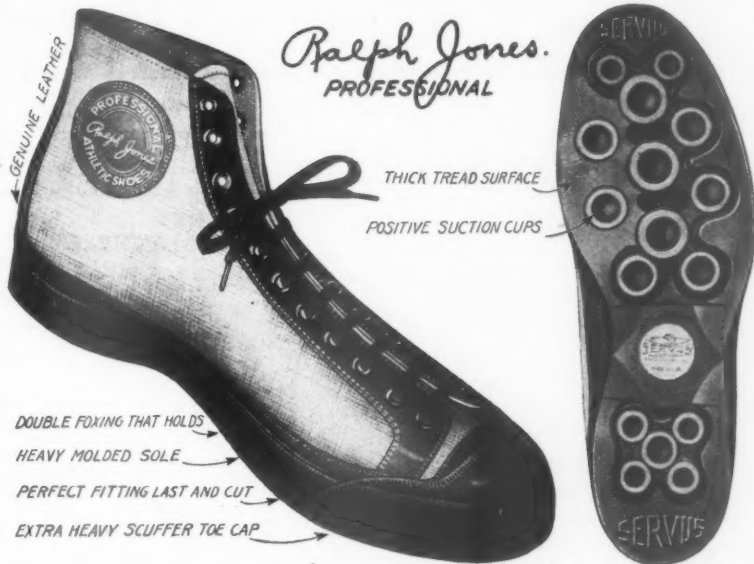
Some may believe that while there are no guarantees to be paid visiting teams, yet there exists the cost of the different coaches. The only paid coaches are those employed for the school teams, who would be employed irrespective of

any system of athletics. During the 1922 football season the school team was coached by E. A. "Jiggs" Donahoe, former Washington and Lee athlete and Clemson College coach. He was assisted by James H. Fraher, former Lehigh player. After the squad had been culled over, it was divided so that Mr. Donahoe had twenty-five boys and Mr. Fraher about thirty-five. These boys were kept throughout the season, since it is one of Mr. Donahoe's principles not to "cut" the squad. After the class league, club league, and Junior leagues were organized, it was found that almost two hundred boys were occupied afternoons in either playing or practicing football.

Some may fear that because of so much activity in this one line of sport, that the efficiency of the school team coach would be lessened; that he would, in some measure, be called on for advice and assistance from the managers of the league teams and that with his attention thus being drawn away from his work, the school team would suffer. It may be of interest, then, to learn that during the past season the Saint John's School football team played ten games, one being an intersectional contest, without a defeat and was scored upon only in the last two games. Another point of interest is that of the eleven first-string players only two were boys who had not been in school the preceding year—in other words, nine of the boys had "graduated" from the league teams. The same condition existed on the cross country team, where the first nine runners were boys who had been developed on the league teams. The cross country team won five of its seven races, including the county championship. The school hockey team won nine of its twelve games. All of the regulars and eleven of the fourteen boys on the squad had, in other years, played on league teams. The basketball team took

(Continued on page 40)

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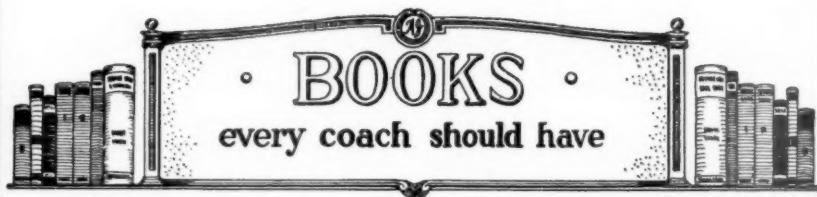
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(Concluded from page 6)

no reason to hesitate on the charge in most cases. The center must be an accurate passer and know the plays thoroughly. He should be a man possessed of clear-headedness. He must know when to pass the ball to catch an opponent off side; vice versa, he must know when to hold the ball in case one of his team mates is off side.

The keynote of a successful line is team work or co-operation of all the men in the line. This is accomplished by charging together, by knowing the plays and signals and by being alert. Linemen must learn to size up their opponents, to learn their weakness and their strength. They must always remember that their goal is to get at the ball. A good line goes to the point of scrimmage quickly and lines up preparatory to getting another play off before their opponents are ready. A good line never quits fighting un-

til the whistle puts a stop to that particular play. A good lineman picks off as many of the opponents as he can before the whistle blows. A line on the defense has only one goal, and that is to stop the play whether it is to tackle a runner, intercept a forward pass or to block a kick.

In regard to training little need be said. Sleep and lots of it, is essential; the necessity of nourishing foods, the need of abstinence from narcotics; both are known to every coach. Attendance at practice is essential and should be vigorously upheld. No team can succeed unless they give all they have.

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# I. H. S. A. A. FOOTBALL

BY

ARTHUR TRESTER

Permanent Secretary Indiana High School Athletic Association

*Mr. Trestler, now Permanent Secretary for the Indiana High School Athletic Association, graduated from Earlham College and later received a Master's Degree from Columbia University. He has had wide experience as a high school teacher and principal, superintendent of schools and lecturer on physical education, moral education and athletics.*

## I. H. S. A. A. Football

Football has been played in the high schools of Indiana since the organization of the I. H. S. A. A. in 1903 and even several years prior to that time. In fact, the many arguments arising over football games between the high schools made the I. H. S. A. A. necessary. The need for a central organization with executive authority to manage and direct the interscholastic athletic activities was felt very keenly by high school principals prior to 1903. With uniform eligibility rules regarding age, scholarship, conduct, time in school, amateurism, sportsmanship and management football became a much more desirable game for high school students.

The game itself, however, continues to be a game considered by many parents and school men, too rough and even too brutal for high school students. The I. H. S. A. A. received many criticisms for permitting and fostering the game among high school boys, so beginning with January 1, 1911, the I. H. S. A. A. required every football player to submit a certificate from a reputable physician as to physical fitness and also a card of consent (from one of his parents), to play football. Both of these certificates were required to be attested by the high school principal and filed with the permanent secretary of the state association. These certificates are still required of all football players.

The rules of the game of football have undergone numerous changes since 1903 and the changes have been along lines to lessen the actual

danger to players and to make the game not merely a game of brute strength. Due to the type of game that football presented in its early life, there unfortunately grew up a football vocabulary that can not be recommended for high school students or for spectators at high school games. Such expressions as "kill him" and "knock him out" are no longer in good form in the I. H. S. A. A. It is true that football is a fighting game, but we have learned that there is such a thing as clean fighting and that a fighting game need not be a war-like game. The spirit of fair play and of sportsmanship has taken hold of the game of football so that it is no longer the main purpose of one team to knock out the members of another team. Football paraphernalia has been improved so that it serves as protection to the wearers rather than instruments of punishment and torture to the opponents.

Football now brings out elements of training in boys the old game knew nothing about. The element of shiftiness, for instance, to meet emergencies caused by the play of the opponents or of team-mates is now emphasized generally. The development of the open play and the forward pass not only have removed much of the brutal fighting of the old game but they have developed qualities of alertness, skill, speed, team work, tactics and strategy that are exceedingly valuable. Beef has now been displaced and the head coupled with physical vigor and skill has been substituted. Most of football now is above the neck. The game of football today, if



played correctly, is a game to advance the ball by strategy, generalship, skill and speed and a game in which unsportsmanlike conduct is not welcome at all. Football is no longer a wrestling match, a prize fight, a knock-down-and-drag-out affair. The old "push and pull" playing is not used in modern football. Battering rams and bullies are not necessary nor wanted today. If these things happen, the contest is not a football game and the game itself should not suffer for such. The disrepute into which the game of football has fallen at times has been due to lack of proper coaching, proper training and proper regulation rather than to the vigor of the game itself. The game of football has gained as it has grown cleaner.

Probably the greatest drawback to football at present is the opportunity the game gives for dirty work and unfair tactics. It is a bodily contact game and in such games the best of officials can not

see all that is going on. This means for us in the I. H. S. A. A. to teach and to train all players to play the game according to the rules rather than according to an evasion of the rules. The "get by" coach has the wrong code and has no place in high school football. The football code preceding the rules in Spalding's Guide should be part of the make-up of every coach and every player. This code furnishes excellent ma-

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terial for the so-called skull practice.

Aside from the moral and sportsmanship side of "dirty" football playing, such is poor policy from the standpoint of individual and team play. No player is the most valuable when he is trying to violate the rules of the game or the rules of sportsmanship. The player who is trying to injure an opponent does not have his mind on football and he is breaking down the morale of his own team. The team that plays clean wins, other things being equal.

### Suggestions

#### I. OFFICIALS

(a) Use only approved officials for referee, umpire, headlinesman and field judge and select these men with care. Choose men who are clean, courteous, competent, courageous, fair-minded and physically fit and then turn the game over to them to officiate.

The I. H. S. A. A. is doing everything in its power to secure good officiating and the list of approved officials contains the best that we have. It takes good officials, good schools and good crowds to have good officiating. Officials must be protected and they must be assured of moral backing in their work. There must be no reason for hesitation to inflict penalties. Schools must secure fearless and competent officials and then support them to the limit.

#### II. COACHES

(a) Employ only such as are clean and competent and such as have personalities that inspire and lead high school students by constantly holding up high ideals.

(b) Coaches of athletic teams should not only have qualities enumerated above, but they should be trained as teachers as well. They should have a good general educational training.

(c) The possession of a college or university monogram given for athletic ability is not sufficient preparation for a high school coach.

High ideals are absolutely necessary.

(d) The ideas and ideals of the coach should be the highest else our energy and attention to athletic activities are worse than lost. The "win at any cost" coach, the coach with low ideals, and the coach that does not know educational aims and purposes, the "cussing" coach, has no place in the I. H. S. A. A. The game of football has suffered in the past and is suffering in some places now on account of the "cussing" coach. Lack of coaching can not and should not be made up by "cussing." Demonstrating, teaching, training, and coaching will do all that can or should be done. Then the results will be such that good habits rather than poor ones will be formed. The ban is on the "cussing" coach in the I. H. S. A. A. He is no more desirable on the football field than in the class room.

(e) The idea held by some coaches that a team must evade the rules and must play the game "dirty" in order to win, must be trained out of them. There is more strength in being clean than in being "dirty." This has been proved in many winning teams in the I. H. S. A. A.

#### III. MANAGEMENT

(a) More attention must be given to the management of all games and football takes considerable time and energy along this line.

(b) All arrangements must be carefully and definitely made. The field of play must be kept in good playing condition in order to prevent many unnecessary injuries. Numerous injuries are due to poor playing fields. All fields should be level and free from stones, sticks, etc. Provisions for handling the crowd must be complete in every way.

(c) Faculty men who are interested, energetic, diplomatic and competent are very necessary as managers.

(d) All athletic management should be under school control.

#### IV. TRAINING

(a) No high school boy should enter a game of football unless he has been taught the rules of the game, the code of true sportsmanship, and the technique of playing the game with alertness and skill.

(b) Parent's and physician's certificates are required by every player and these must be in the hands of the permanent secretary prior to the playing. These certificates not only protect the school authorities, but they should protect the players as well. All certificates must be signed by the parent and the physician and be attested by the high school principal. These will be sent in quantities upon request of the permanent secretary.

(c) Football players must be physically fit and this means more than merely being well, or not sick. Players must have had sufficient training to have wind, endurance and hardness prior to participation in a game. Under training and over training are both serious.

(d) Players must be taught how to fall and how to fall on the ball. Injuries often result from ignorance and the game suffers as a result. Catching kick-offs and

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punts, making drop-kicks and place-kicks, tackling opponents in the open, blocking opponents, throwing and receiving passes, recovering the ball, picking off opponents, must be taught and taught well. Intelligence and skill enter here.

(e) The equipment is very important and the pants and jersey should be well padded. Shoes should be comfortable and serviceable. Ankle braces usually prevent sprained ankles. Head guards protect the player. It pays to look after the equipment of players at all times.

(f) Physical examinations should be thorough and frequent. None but competent physicians having high ideals should do this work. Careful observation should be given all boys by the coach daily.

### A Plan for the Management, etc.

(Continued from page 32)

seven of its ten games, the tennis team took five of its seven matches, and the baseball team lost only two out of fifteen games played. In all sports, the percentage of boys who formerly had played on the league teams was greatly in excess of boys who had entered school the preceding September. In baseball, only three of the entire squad of twenty-four, were boys spending their first year at Saint John's. This shows that results will be found on the school teams after some such plan has been in operation a few years.

Why check the boys and make the work compulsory? There is no doubt that voluntary action would be preferable, but, as experience has taught us, only a small percentage of the boys would be benefited. There are many boys who, because of timidity, lack of interest, lack of initiative, etc., would not trouble themselves about sports. They are the ones whom we wish most to reach and who usually show the need of training and exercise.

(Concluded from page 17)

strike slightly above the eyes. Just a little before the right arm is lifted, the head should be turned slightly to the left side with the mouth opened. The breath should be taken in through the mouth and exhaled through the nose. The head and eyes should be kept to the front as much as possible.

### Land Exercise

It is well to practice the strokes out of the water a great deal as follows: The swimmer should stand erect, raise his right arm obliquely sideward and upward with the palm outward. The left arm should hang to the side as a starting position. (Use two counts to the arms.) At the count of one the right arm should be brought downward to the side; as it reaches the thigh, the arm should be bent at the elbow, the arm and hand resting across the chest. At the same count or as the right arm is brought down, the left arm should be raised sideward and upward with the elbow bent and leading and should be thrust forward in front of the head. At the count of two the left arm should be brought down in front of the body to its original position and the right arm should be thrust upward and sideward to its original position. In combining the leg and arm movements complete movements should be made in three counts—two movements of the arms and two of the legs. At the count of one the arm should be used, legs remaining extended. (See illustration 1.) On the count of two, as the left arm is brought down and the right arm is being extended, the legs should be drawn up making the first movement with the legs. At the count of three the legs are whipped together making the second movement with the legs. (See Illustration 3.) At the end of this count the body is back in its original position as in one.

### PRINCIPLES OF FOOTBALL

By John W. Heisman

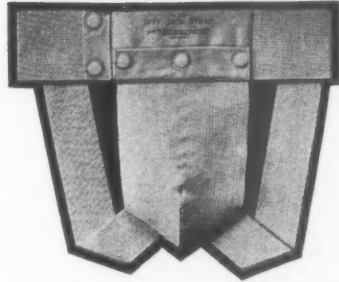
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(Continued from page 12)

cessful results were accomplished. I might also add that linesmen had this same training. The result was that his team gained possession of a loose ball far more often than did their opponents. A prominent eastern coach numbered his men; then as he called a number, that man would fall on the ball. The numbers were never called in rotation, so every man had to be on the alert. This coach spent a great deal of time on this and his team was very adept at recovering loose balls.

III Foot work in the back field is without a doubt one of the greatest problems of the coach. We want the maximum driving power for



Illustration 10

line plunges and a versatile attack for running ends, forward passing and kicking. For regular formation, we place our quarter back behind the center; the other three backs four or five yards back of the line of scrimmage. The fullback should be directly behind the center and about a foot in advance of the halfbacks. The two halfbacks should be far enough to the side of the fullback so that from their starting position, they can reach over and touch the fullback's rump. As the formations are changed, the backs will, of course, change their positions. As to the proper method of starting, many coaches disagree. Some prefer the style where the backs bend slightly forward, with the elbows resting a little above the knees. I prefer to have the backs

stand with their feet about two feet apart, the left foot slightly in advance, the body leaning forward, the fingers of the right hand resting lightly on the ground and left arm raised behind the body in order to keep the proper balance. (Illustration 11.) By this method the player has an exceptionally fast start for a line plunge, and he can start around either end as fast or faster than by any other method, because of the additional push off of the fingers. The backs should keep their eyes straight ahead and not apparently watch the ball, because if they do so, there is a tendency to lean the way the play is going.

In perfecting a back field that can smash the line, run the ends, pass and punt equally well, we must use methods of practice that call for charging, stopping, starting, and dodging. One well known coach has several boxes about two feet square and eighteen inches high. He places four of these boxes in a square with three or four feet clearance between each box. The men carry the ball through this space and as they run they place both feet, one foot at a time in every box. This requires fast foot work and teaches the back to bring his knees up high and to be shifting sideways at the same time.

Most of the good backs usually turn at right angles and do not try to run corners. Some backs in making a long end run will try to circle the opponent's end. They are rarely successful under the present style of play, where the ends turn all plays in. The fast backs, that cannot dodge or sidestep, but can only run fast, have no chance. The back should start straight toward the side lines, then cut sharply in or outside the end. After doing this, he is at the mercy of the halfback, unless he can turn at right angles. If he circles back, the linesmen can tackle him and if he keeps going out, the half back will tackle him, turn him in or run him out of bounds. How



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ever, if after getting by the end, he cuts back toward the halfback, he now has the halfback at a disadvantage, because he can run at full speed and dodge or sidestep either way or he can slow up a trifle, and as the halfback rushes him, change his pace and run around the halfback. One good plan is to work on a make-believe end run. As an illustration, we will work on one to the right. Take it for granted that the opposing end will turn the play in. Place No. 1 about fourteen feet to the right, No. 2 the same distance to the right and about six feet ahead, No. 3 about ten feet directly to the right of No. 2. Then let the halfback take the ball on a direct pass from center; he should run straight at No. 1, cut inside of him, keep running straight at No. 2, cut inside again, and then as he is running straight at No. 3, yell right or left, when he is about three or four feet from No. 3. He should cut accordingly. This does not necessarily mean that end runs always go this way, but we get excellent practice in making the backs

stop on both feet, momentarily start in a new direction and have control of their bodies at all times.

Another plan for shiftiness is to line up the men in single file, about four yards apart. Let the backs run down this line and pass every other man on the same side. This plan has been used for years and is no good unless the backs shift the ball at every turn and cut sharply from side to side. If they merely zig zag down the line, the practice will be of no value.

One good plan of developing charging on the part of the halfbacks is to have two men hold a rope about three feet off the ground. Line up the backs parallel to the rope and about five yards away. At the word "Go," have them charge under the rope. It should be understood that they are to stop when they have gone four or five yards beyond the rope, and turn around facing the rope again. Yell "Go," and repeat until the men are tired but not worn out. This is a very good exercise to finish an evening's workout. Beside developing charging, this exercise keeps the backs running low.

I have not taken up any points of defensive play, because as mentioned before, back field play is too large a subject to be covered, except in a book. There are various other methods of practice to develop the back field men and every coach must choose for himself. We are agreed, however, that the fundamental points of back field play should be emphasized.



Illustration 11

Ques.—Will there be any articles in the JOURNAL this year on strategy in football?

Ans.—There have been so many requests for an article of this sort that it has been decided to reprint a most excellent article entitled "Field Tactics" by K. K. Rockne that appeared in the October JOURNAL, 1921

(Continued from page 13)

follow that he is a good leader of men; that he is able to impart his knowledge to others or that he is a close follower of the game from all positions. From these facts, and from the fact that many of the most successful coaches in the country played football on minor teams or in a minor capacity, it is now generally conceded that a man's stellar football on a college team is only one of the small elements necessary to his success as a coach. True, to a greater extent is this of officiating, an altogether different line of work from participation in the game itself. It is argued by some that it is not only an asset but a detriment for an official to have been a star player—and one of the criticisms of one of our best officials arose from the fact that he officiated more like a player than like an official and that he saw the game from the wrong view point.

In football officiating, of course, the lack of bias or prejudice, and the ability not to let outside things interfere with the judgment, are fundamental principles—things that must be present before the official can even begin. These qualities are now so universally accepted as necessary qualifications that it can be assumed that every official possesses them.

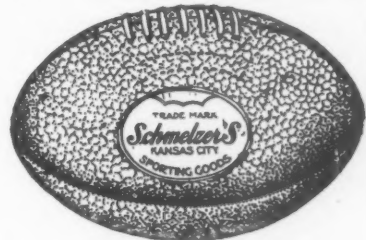
Football officiating in the first instance is largely a matter of personality. Many of our officials, who know the rules well and are otherwise competent, fail because the players, the spectators, and the management, do not have confidence in them and they lose control of the game. Above all things the official must "run the game."

Another chief requisite of a successful football official is that cool-headedness and control which keeps the man in entire touch with the situation at all times, never allowing himself to become flustered or rattled or to lose his temper. Loss

of personal control for a fraction of time may cause a grave mistake, or giving way to temper, a serious injustice, neither of which can be remedied.

Decisiveness and firmness are other fundamentals. If the official is sure in his own mind as to the facts, arrives at his conclusion, and in a firm decisive manner announces his decision, allows no argument thereon, and is not induced to change, half the battle is over. If, however, the decision is announced in an apologetic, half-hearted manner it leads to loss of confidence and respect for the official. It is the duty and responsibility of the official to decide, and right or wrong, when his decision is rendered then the question should be closed.

Quick thinking is another attribute, as well as judgment, the judgment which comes instinctively to grasp and determine correctly the difference between an infraction of



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the rules and an apparent infraction, within the legitimate; the judgment to see immediately, appreciate and distinguish the right from the wrong. Probably judgment is more than any of the other requisites of an official a matter of natural gift—an instinct or sixth sense.

At the end of one of the big games—a game played in a field heavy with mud—one of the spectators approached the referee and remarked, "You worked almost as hard as the boys did." In that game the referee had run three or four times as far as any man on the team, he had been under a nervous strain, he had been in and out of every play. If his physical condition had not been of the best, he could not have lasted a quarter. So physical fitness, to which can be added speed and other physical attributes, are essential qualifications.

The greatest requisite of the successful football official, the easiest of all to obtain, and the one most neglected, is *hard work on the rules of the game*. It is necessary for the official to master the rules, not only as we read them and understand them, but in their inconceivable variations, and to have them at his finger tips, ready for immediate use, should occasion present. One year, one of the officials in the Missouri Valley undertook to study the rules for himself. He knew the rules and could repeat almost verbatim any rule in the book. He thought he had *mastered* the rules. Approaching another official with that statement, the other official picked up the rule book and asked ten questions, not one of which could the man "who had mastered the rules" answer successfully, and any one of which arising in a game might have lost the game for one or the other of the teams. Strange and unusual things occur during the progress of the game and add to the troubles and difficulties of officiating. Many times in the past

two years has a punted ball been blown back over the punter's head, either going out of bounds or not and on fourth down, both of these plays raising innumerable questions. At the kick-off in at least two of the games, the ball was punctured on being caught, and so often has a drop kick struck upon the ground and then bounced over the goal cross bar, that the Rules Committee were forced to incorporate it in the rules. This play arose for the first time in a big game a number of years ago in Iowa, and the ruling upon it by the official decided the game. Hours should be spent in working over the rules, possible plays, means of bettering the game, lessening fouls, interpreting plays, until the possible occurrences, that are unknown to the official, are a minimum.

The work of officiating a football game, after a consideration of these facts, is clearly no bed of roses. The work is done always before a crowd ranging from a handful to eighty thousand people. The Schools, Counties, State, States, and occasionally the entire Country, are all vitally interested. An oversight, a mistake, an accident, and the damage is irreparable. So much depends upon each small question arising, and the result can be changed so materially by such a mistake, that the responsibility, for the length of time which a game lasts, has few if any equals. All officials know and feel that even the best and most competent of their number must make mistakes—"miss 'em" as it is called in baseball.

An example of such a mistake arose several years ago in a game played in the rain on a muddy, slippery field, where after the first down the men on the different teams looked just alike. During the game, the ball was fumbled and recovered by a muddy figure, the referee giving the ball, as he thought, to the side of the players who had recov-



ered the ball. After the game was over, the referee was approached by a player, who proved to be the man who had recovered the fumble in the game. The player respectfully desired to know on what foul the referee had taken the ball away from his side, when he had recovered the fumble, and given it to the opposing team. An investigation by the referee disclosed this to be the fact, that mistaking the man who had recovered the fumble, he had given the ball to the wrong team.

Mistakes either of omission or commission on the part of the official are very seldom forgiven and *never forgotten*. The consequence of these mistakes is too great; the general spectator reasons that it is the official's business to know. Consequently the ever present warning in the official's subconscious mind, "Be sure—officials must not make mistakes."

Some years ago an inquiry was addressed by a self styled "would be football official" to C. E. McBride, sporting editor of the Kansas City Star, in which the "would be official" stated that he desired to become a football official and desired to know "the requisites." Mr. McBride answered by calling attention to the necessity for knowledge of the rules, fairness and unbiased judgment, etc., and ended up his answer by "lastly and most important—*getting some games to officiate*" and that adds an element which can only be gained by time and practice which is *experience*.

With the growth in popularity of football there never was a time when there was a greater need for competent, unbiased, capable officials, and any man having a trace of these fundamental requisites (excepting, of course, experience) who will put the time and effort into the study of the game and the rules that they require, can and will become a capable official.

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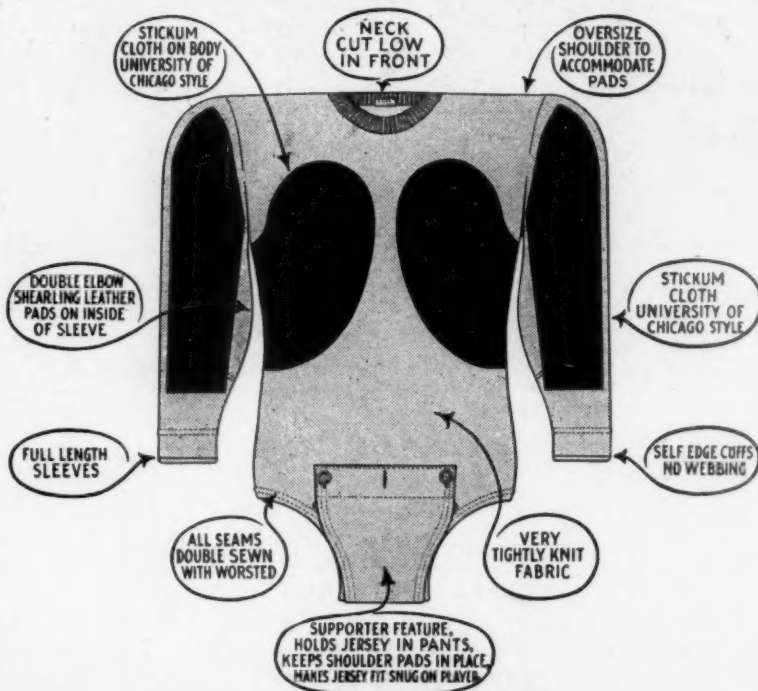


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